

IP69K Stainless P-Cap 15/ 17/ 19/ 21.5/ 23.8” Panel PC

Intel® Core™ i5-1135G7 2.4GHZ (up to 4.2 GHZ)



Model No.:R15IT3S-SPC369
R17IT3S-SPC369
R19IT3S-SPM169
W22IT3S-SPA369
W24IT3S-SPA269

Quick Start Guide

Contents

Preface	2
Chapter 1: Introduction	5
1.1 Features.....	5
1.2 Package Content.....	6
1.3 Product Overview.....	7
1.3.1 Dimensions 15".....	7
1.3.2 Dimensions 17".....	7
1.3.3 Dimensions 19".....	8
1.3.4 Dimensions 21.5".....	8
1.3.5 Dimensions 23.8".....	9
1.4 Physical Buttons and LED Indicators.....	10
1.5 Connectors.....	10
Chapter 2: Getting Started	11
2.1 Turning On and Off Your Device	11
2.2 How to Enable Watchdog.....	12
2.3 Touch Mode	13
Chapter 3: Installation	16
3.1 Wiring Requirements.....	16
3.2 Connector Pin Assignments	17
3.2.1 Power Cable.....	17
3.2.2 Serial Cable.....	18
3.2.3 Ethernet Cable.....	18
3.2.4 USB 2.0 Cable.....	19
3.3 Mounting	19
3.3.1 VESA Mounting	19
3.3.2 Yoke Mounting.....	21
Appendix	22
Appendix A: Hardware Specifications	22
Appendix B: Cleaning the Monitor	24
Appendix C: Winmate Software Development Kit.....	24

Preface

FCC Statement



This device complies with part 15 FCC rules.

Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class "B" digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

European Union



Electromagnetic Compatibility Directive (2014/30/EU)

- EN55024: 2010/ A1: 2015
 - IEC61000-4-2: 2009
 - IEC61000-4-3: 2006+A1: 2007+A2: 2010
 - IEC61000-4-4: 2012
 - IEC61000-4-5: 2014
 - IEC61000-4-6: 2014
 - IEC61000-4-8: 2010
 - IEC61000-4-11: 2004
- EN55032: 2012/AC:2013
- EN61000-3-2:2014
- EN61000-3-3:2013

Low Voltage Directive (2014/35/EU)

- EN 60950-1:2006/A11:2009/A1:2010/A12:2011/ A2:2013

This equipment is in conformity with the requirement of the following EU legislations and harmonized standards. Product also complies with the Council directions.

Copyright Notice

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Trademark Acknowledgement

Brand and product names are trademarks or registered trademarks of their respective owners.

Disclaimer

Winmate Inc. reserve the right to make changes, without notice, to any product, including circuits and/or software described or contained in this manual in order to improve design and/or performance. We assume no responsibility or liability for the use of the described product(s) conveys no license or title under any patent, copyright, or masks work rights to these products, and make no representations or warranties that these products are free from patent, copyright, or mask work right infringement, unless otherwise specified. Applications that are described in this manual are for illustration purposes only. We make no representation or guarantee that such application will be suitable for the specified use without further testing or modification.

Warranty

Winmate Inc. warranty guarantees that each of its products will be free from material and workmanship defects for a period of one year from the invoice date. If the customer discovers a defect, we will, at his/her option, repair or replace the defective product at no charge to the customer, provide it is returned during the warranty period of one year, with transportation charges prepaid. The returned product must be properly packaged in its original packaging to obtain warranty service. If the serial number and the product shipping data differ by over 30 days, the in-warranty service will be made according to the shipping date. In the serial numbers the third and fourth two digits give the year of manufacture, and the fifth digit means the month (e. g., with A for October, B for November and C for December).

For example, the serial number 1W17Axxxxxxx means October of year 2017.

Customer Service

We provide a service guide for any problem by the following steps: First, visit the website of our distributor to find the update information about the product. Second, contact with your distributor, sales representative, or our customer service center for technical support if you need additional assistance.

You may need the following information ready before you call:

- Product serial number
- Software (OS, version, application software, etc.)
- Description of complete problem
- The exact wording of any error messages

In addition, free technical support is available from our engineers every business day. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products.

Advisory Conventions

Four types of advisories are used throughout the user manual to provide helpful information or to alert you to the potential for hardware damage or personal injury. These are Notes, Important, Cautions, and Warnings. The following is an example of each type of advisory.



Note:

A note is used to emphasize helpful information



Important:

An important note indicates information that is important for you to know.



Caution/ Attention

A Caution alert indicates potential damage to hardware and explains how to avoid the potential problem.

Une alerte d'attention indique un dommage possible à l'équipement et explique comment éviter le problème potentiel.



Warning!/ Avertissement!

An Electrical Shock Warning indicates the potential harm from electrical hazards and how to avoid the potential problem.

Un Avertissement de Choc Électrique indique le potentiel de chocs sur des emplacements électriques et comment éviter ces problèmes.



Alternating Current Mise à le terre !

The Protective Conductor Terminal (Earth Ground) symbol indicates the potential risk of serious electrical shock due to improper grounding.

Le symbole de Mise à Terre indique le risqué potentiel de choc électrique grave à la terre incorrecte.

Safety Information

Warning!/ Avertissement



Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

Toujours débrancher le cordon d'alimentation du chassis lorsque vous travaillez sur celui-ci. Ne pas brancher de connexions lorsque l'alimentation est présente. Des composants électroniques sensibles peuvent être endommagés par des sauts d'alimentation. Seulement du personnel expérimenté devrait ouvrir ces chassis.

Caution/ Attention



Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

Toujours vérifier votre mise à la terre afin d'éliminer toute charge statique avant de toucher la carte CPU. Les équipements électroniques modernes sont très sensibles aux décharges d'électricité statique. Toujours utiliser un bracelet de mise à la terre comme précaution. Placer toutes les composantes électroniques sur une surface conçue pour dissiper les charge, ou dans un sac anti-statique lorsqu'elles ne sont pas dans le chassis.

Chapter 1: Introduction

Congratulations on purchasing Winmate® IP69K Stainless P-Cap Panel PC.

Wimate flat stainless steel P-Cap panel PCs and display are designed for applications with high hygienic requirements. IP69K series is completely waterproof with IP69K level of protection allowing for easy cleaning and sterilization.

The IP69K stainless series work well in food, beverage industry, including food processing operations and packaging, chemical manufacturing and other industrial applications.

1.1 Features

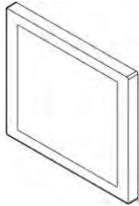
The IP69K Stainless P-Cap Panel PC features:

- Intel® Core™ i5-1135G7 2.4GHZ (up to 4.2 GHZ)
- SUS316 stainless steel for food and chemical industries
- Full IP69K waterproof enclosure, good corrosion resistance
- A true flat, easy-to-clean front surface with edge-to-edge design
- Flat multi-touch panel pc with superior readability and P-CAP technology
- Various mounting solutions, support Yoke mount and VESA mount
- Plenty of I/O s including USB 2.0, RS-232 serial port and RJ45-10/100/1000 LAN ports
- Waterproof ports with adapter cables for external connectivity
- Supports VESA mount
- Supports Rain/ Glove mode (Optional)

1.2 Package Content

Carefully remove the box and unpack your device. Please check if all the items listed below are inside your package. If any of these items are missing or damaged contact us immediately.

Standard shipment list:



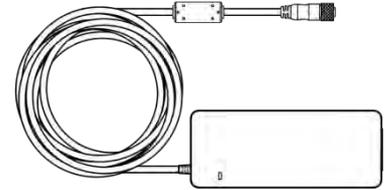
- **Panel PC**

Varies by product specifications



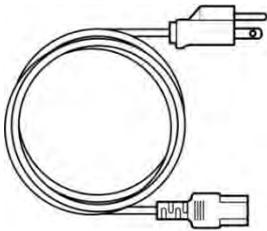
- **Quick Start Guide (Hardcopy)**

Part No. 91521110111E



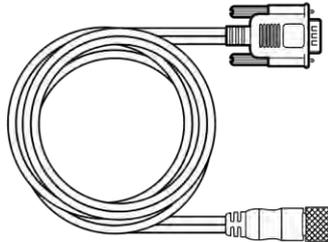
- **AC Adapter**

50W: 90PO12050006
84W: 90PO12084000



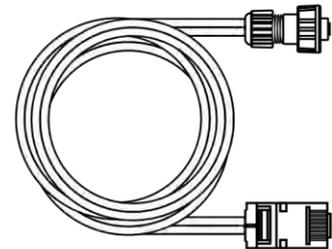
- **Power Cable***

Varies by country



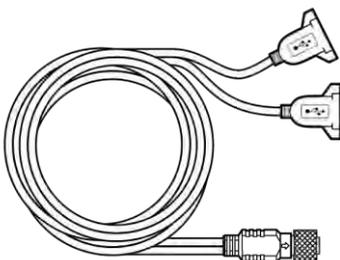
- **Serial Cable**

Part No.94G0123090Q0



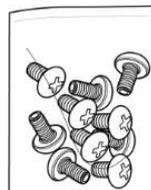
- **Ethernet Cable**

Part No. 94I0080080KF



- **USB Cable**

Part No. 9480128080K0



- **VESA Screws**

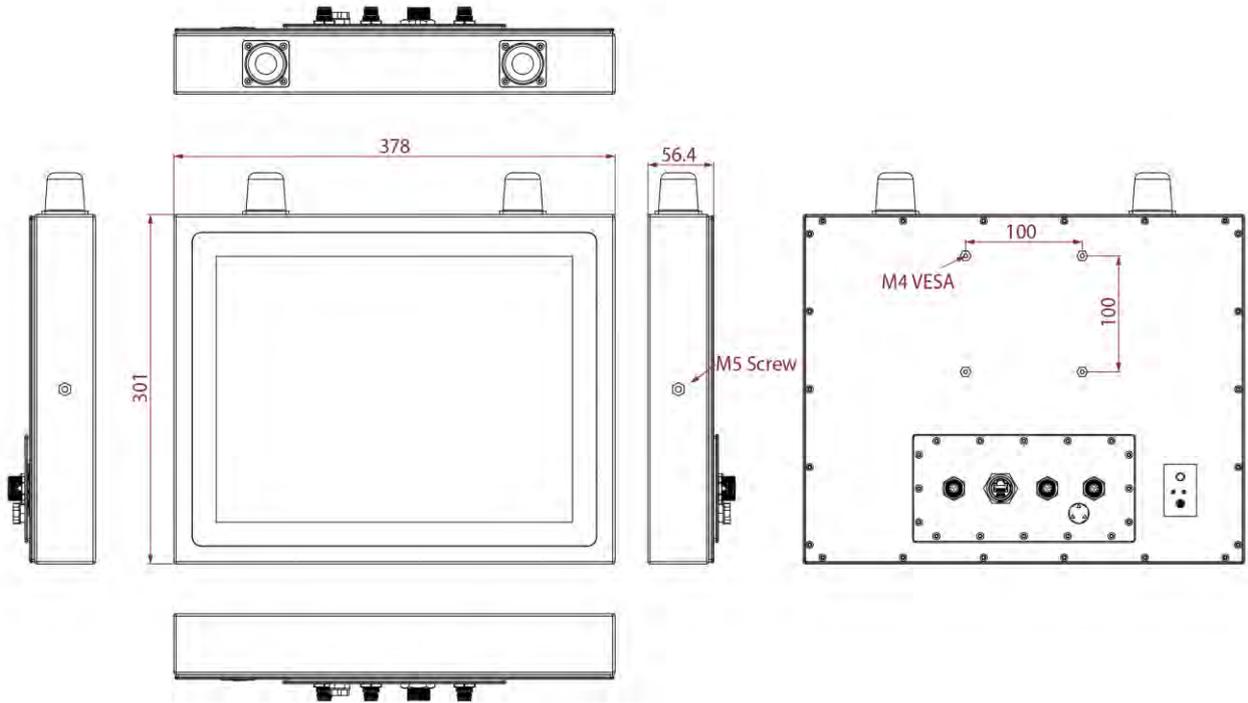
Part No. 913511101101

1.3 Product Overview

This section contains mechanical drawing of the Panel PC. Notice that this is a simplified drawing and some components are not marked in detail.

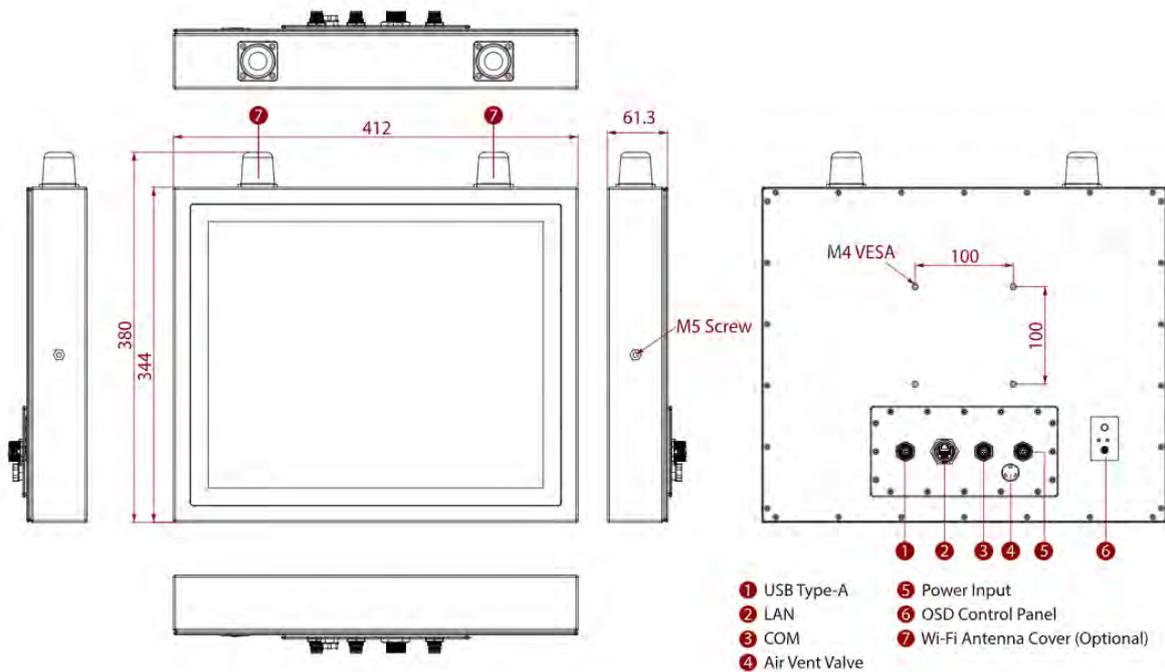
1.3.1 Dimensions 15"

Unit: mm



1.3.2 Dimensions 17"

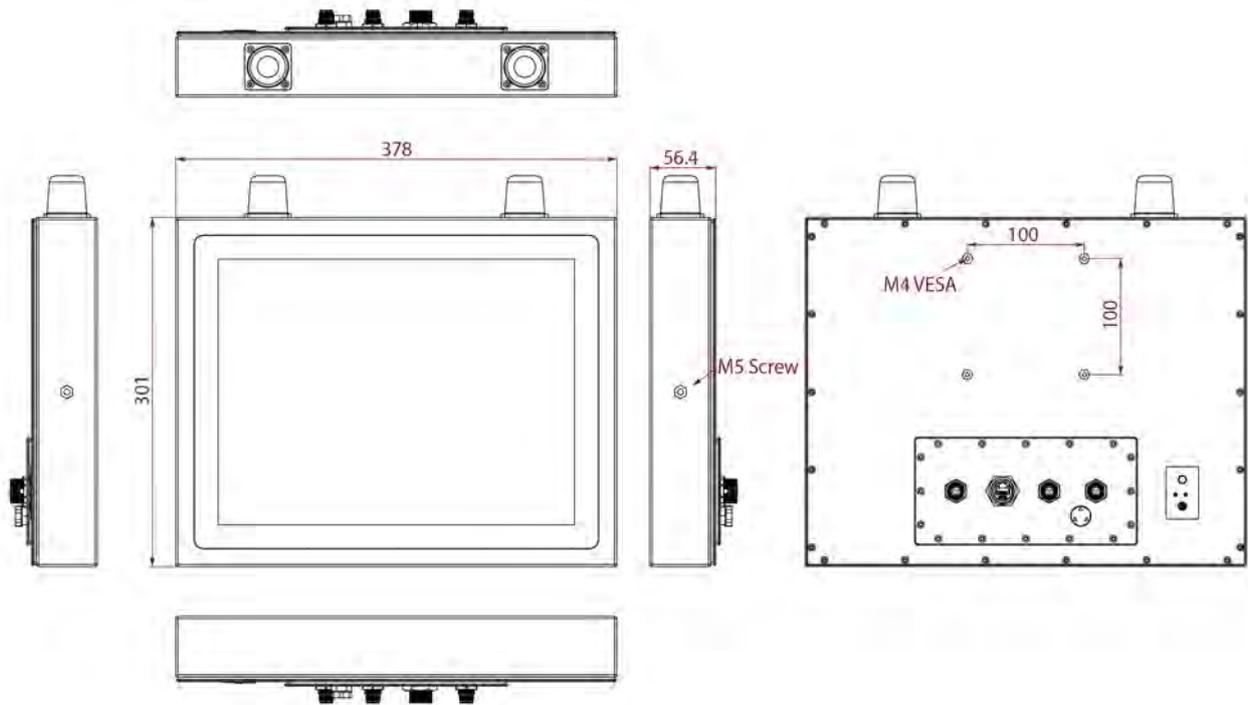
Unit: mm



- 1 USB Type-A
- 2 LAN
- 3 COM
- 4 Air Vent Valve
- 5 Power Input
- 6 OSD Control Panel
- 7 Wi-Fi Antenna Cover (Optional)

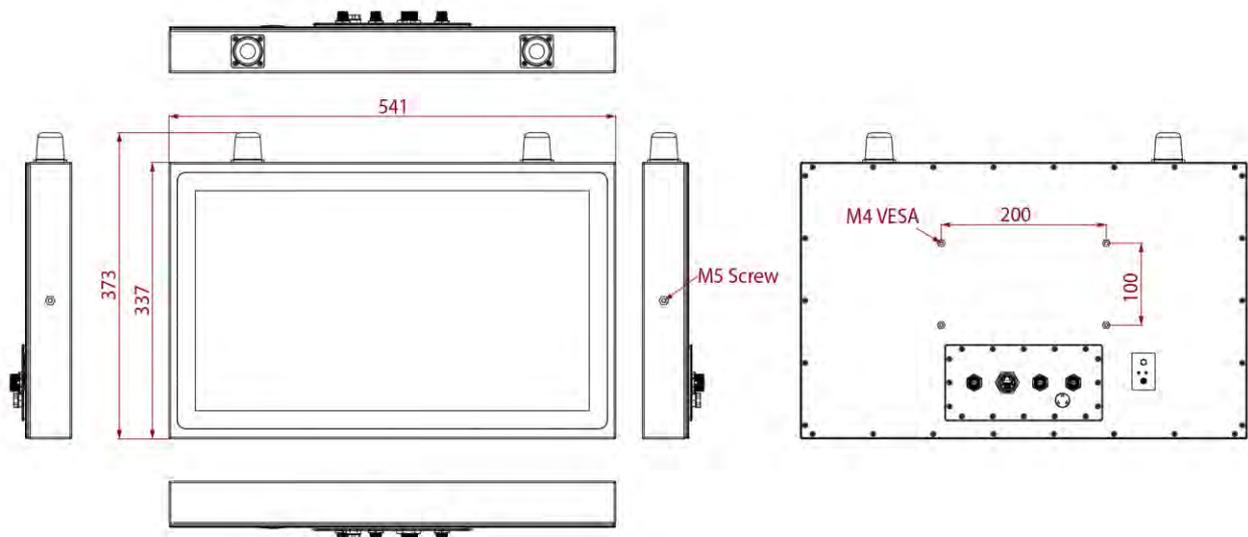
1.3.3 Dimensions 19"

Unit: mm



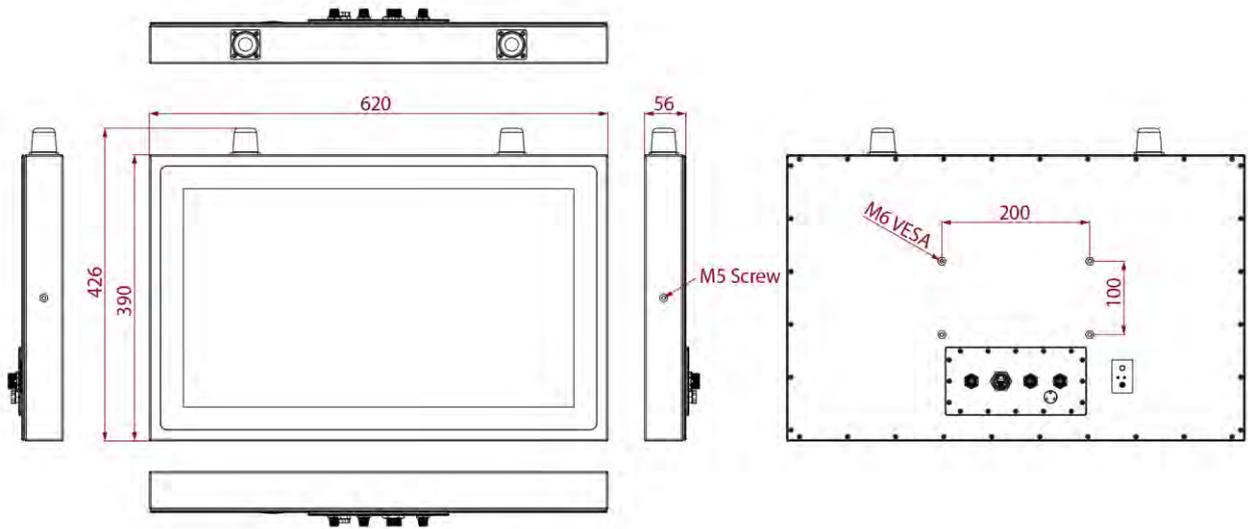
1.3.4 Dimensions 21.5"

Unit: mm



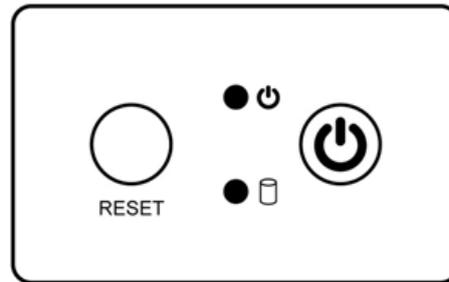
1.3.5 Dimensions 23.8"

Unit: mm



1.4 Physical Buttons and LED Indicators

Physical buttons and LED indicators located on the rear side of the Panel PC.



Physical Buttons

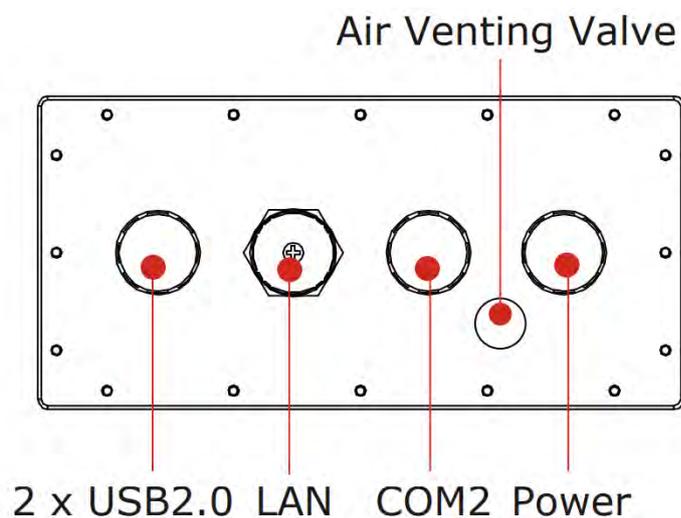
Icon	Button	Description
	Reset	Press to reset the system
	Power On/ Off	Press to power on or power off the device

LED Indicators

LED Type	Status	Description
	On	Power is on
	Off	Power is off
	Blinking	Storage activity (Data is being read or written)
	Off	System is idle

1.5 Connectors

IP69K Stainless P-Cap Panel PC has M25 type connectors with protection cap and air venting valve.

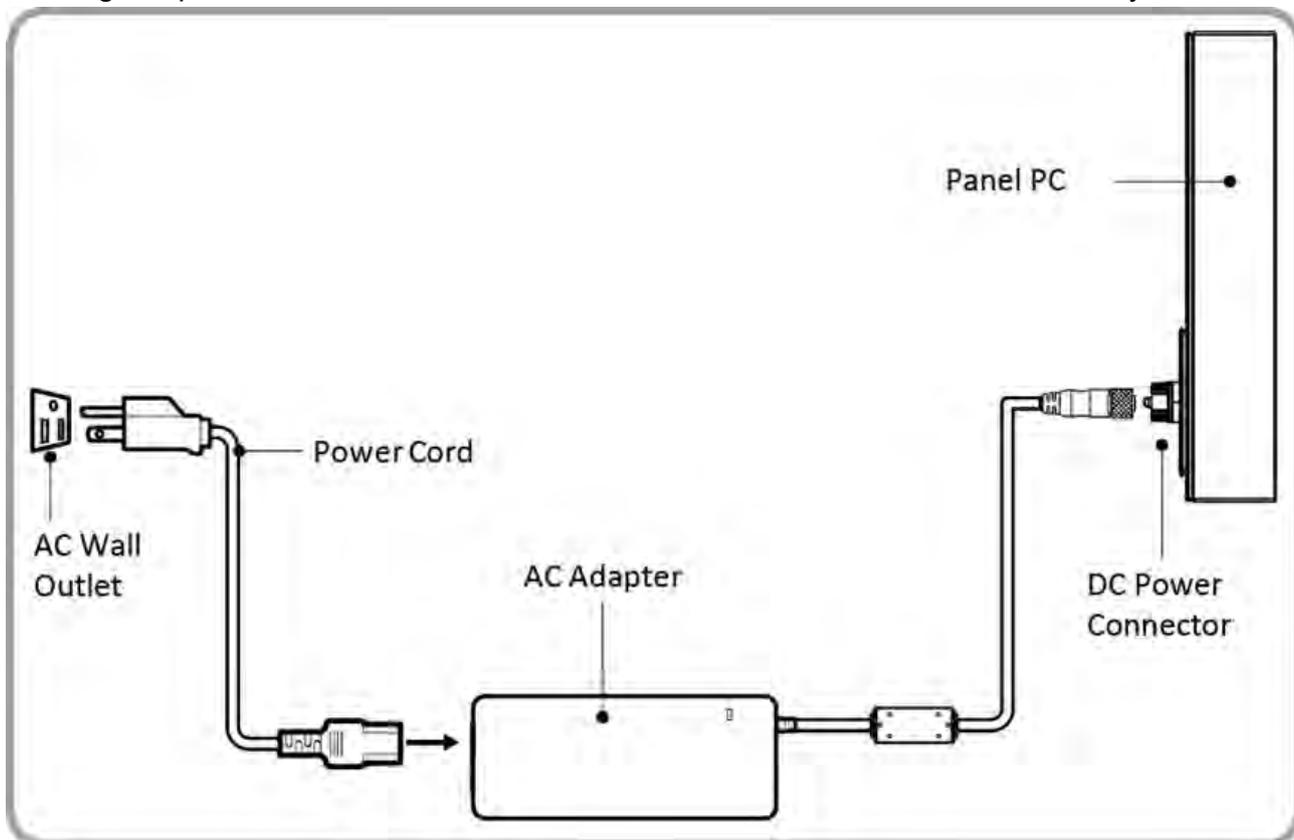


Chapter 2: Getting Started

2.1 Turning On and Off Your Device

To turn on your device:

1. Connect the AC adapter to the DC-in jack connector located on the back side of the Panel PC.
2. Connect the power cord to AC adapter.
3. Plug the power cord to the AC outlet and the device will turn on automatically.



AC Adapter specifications vary by panel size.

Size	15"	17"	19"	21.5"	23.8"
AC Adapter	12V/ 80W				
Power Consumption*	52W (typ.)	56W (typ.)	56W (typ.)	66W (typ.)	66W (typ.)

*With maximum backlight and high CPU load.

To turn off your device:

To shut down your device, do the following: Tap Start () > Shut down.

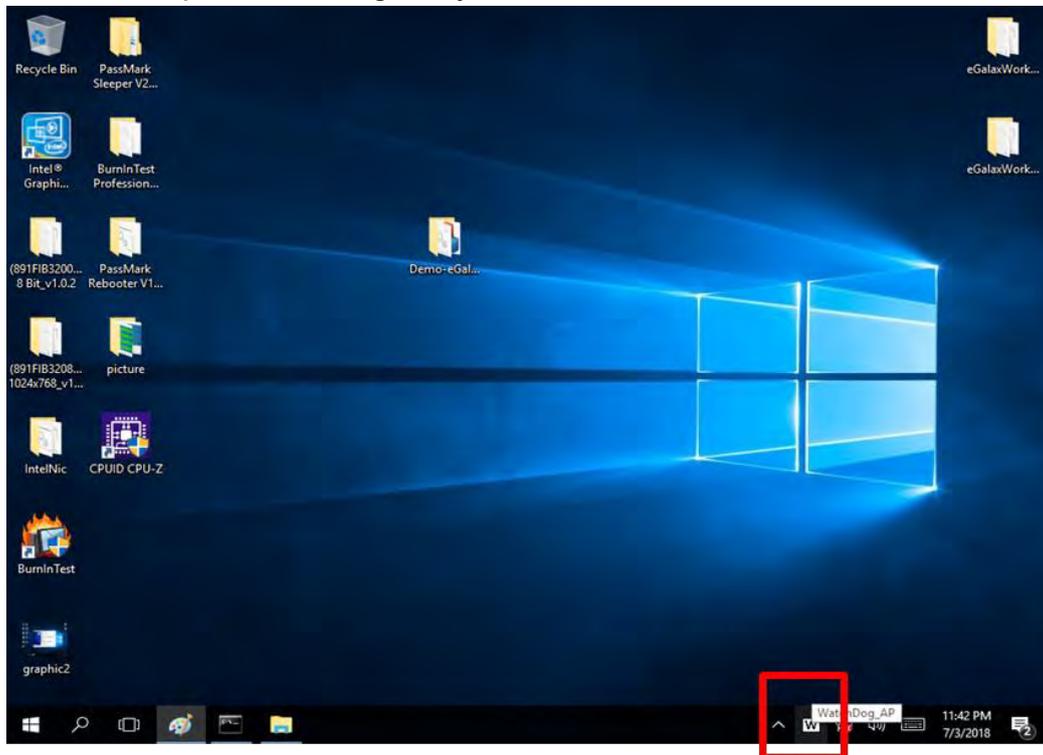
Wait for your Panel PC to completely turn off before disconnecting the power cord (if necessary).

2.2 How to Enable Watchdog

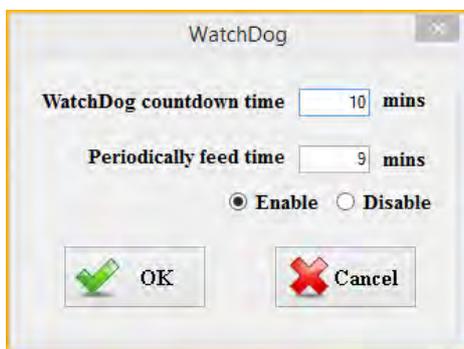
To enable Watchdog, you need to download Winmate Watchdog utility. Find more information on Watchdog in “Watchdog Guide” that you can download from Winmate Download Center or File Share. Refer to the User Manual for more details.

To enable watchdog in Watchdog AP follow the instructions below:

1. On the right bottom side of the desktop screen, click  **triangle button** to show hidden icons.
2. Click  **W icon** to open Watchdog utility.



3. In Watchdog utility window set countdown time and periodically feed time, or disable watchdog.



Example:

Every 10 min watchdog will monitor the system, in case any error occurs the system will restart automatically when the countdown time reaches 0.

Every 9 min watchdog timer will be reset to 10 min.

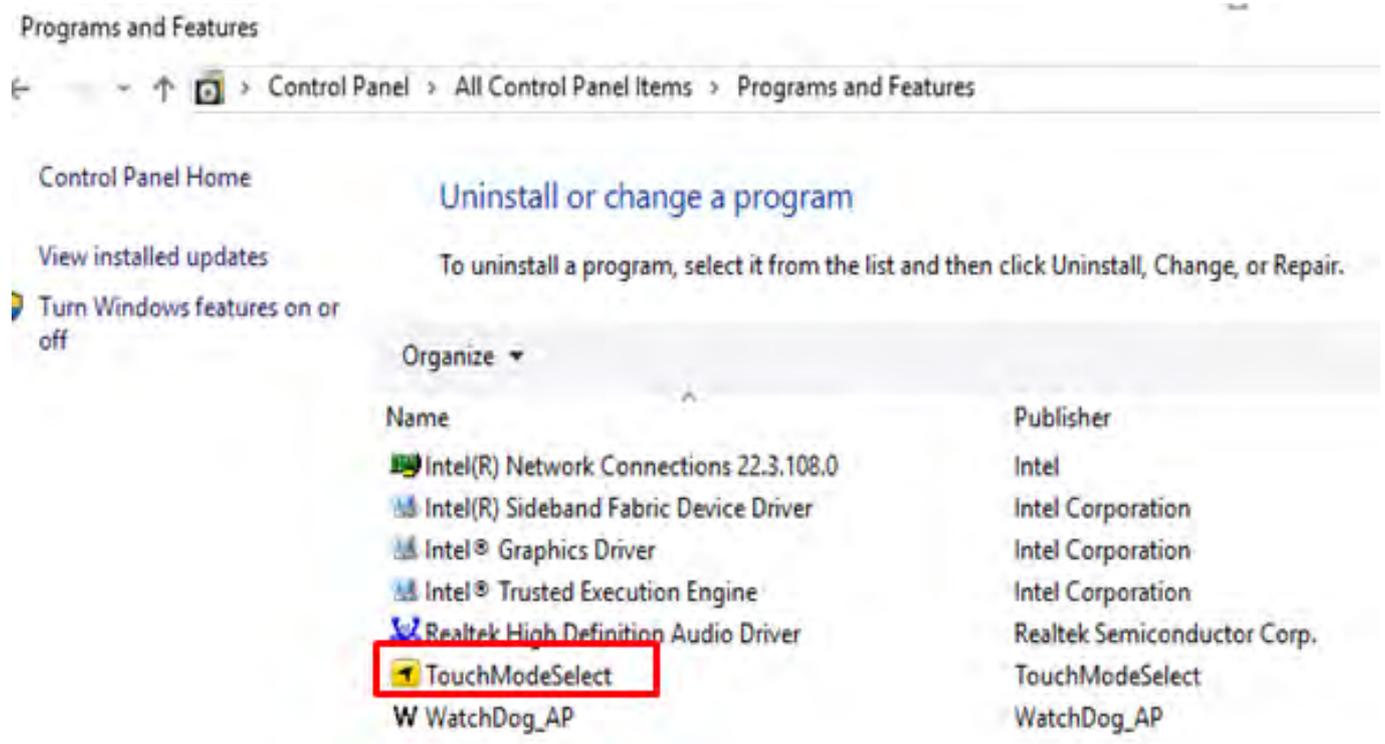
Setting	Description
Watchdog Countdown Time	The system automaticity restarts when this countdown time reaches zero. <i>Default: 10 min</i>
Periodically Feed Time	To set a cycle time to automatically reset watchdog timer. <i>Default: 9 min</i>
Enable / Disable	Enable or disable watchdog. <i>Default: Enable</i>

2.3 Touch Mode

IP69K Stainless P-Cap Panel PC has three types touch modes pre-installed with Windows OS.



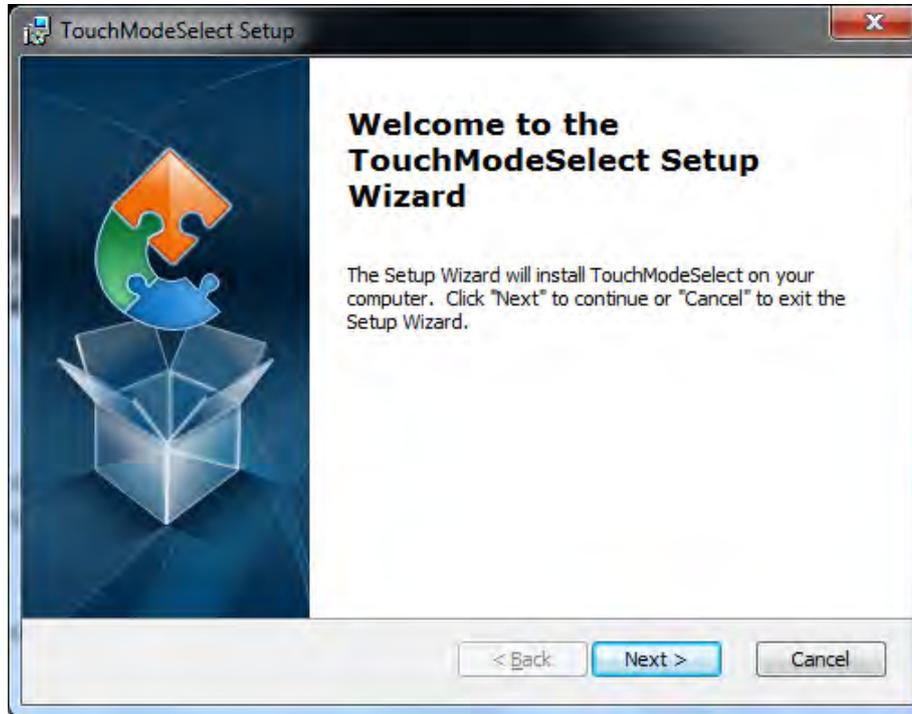
The icon is on the bottom right corner of the toolbar.



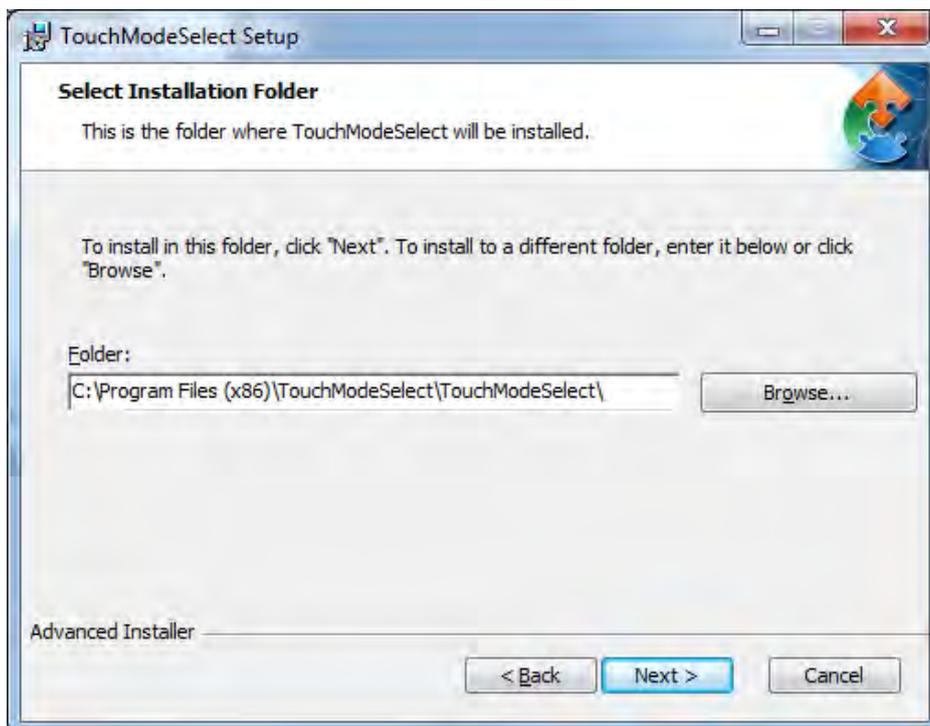
If the OS is not installed, please download the application on our website for switching the touch modes. If you cannot find it, please download it from Winmate Download Center or contact Winmate sales representative.

Follow the instructions below to install the *TouchModeSelect* Utility.

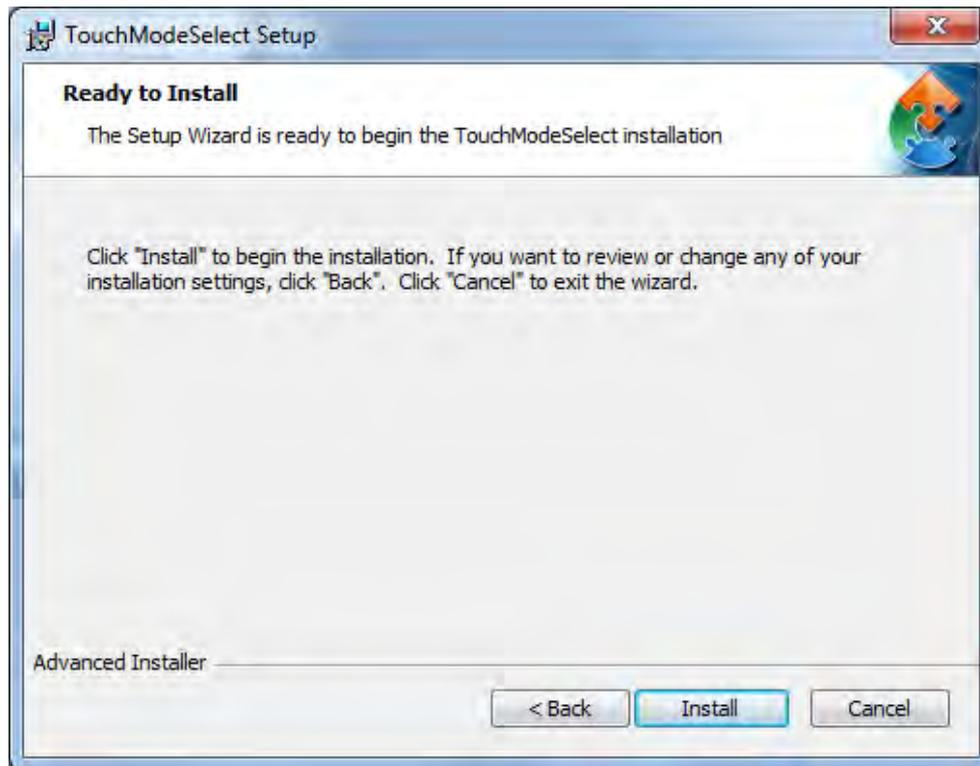
1. Download, install and execute **TouchModeSelect_1.2.3** setup wizard.
2. Click **Next** to continue.



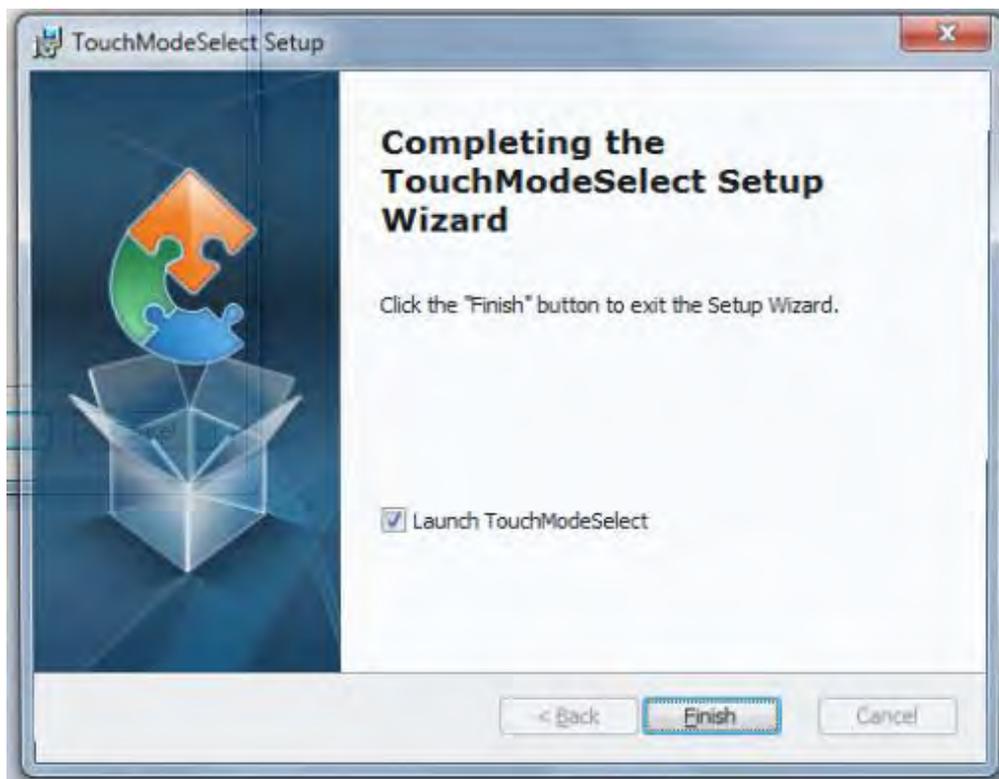
3. Select the installation folder, and click **Next** to continue.



- The Setup Wizard is ready to begin the **TouchModeSelect** installation. Click **Install** to proceed.



- When installation is complete, click **Finish** button to exit the Setup Wizard.



Chapter 3: Installation

3.1 Wiring Requirements

The following common safety precautions should be observed before installing any electronic device:

- Strive to use separate, non-intersecting paths to route power and networking wires. If power wiring and device wiring paths must cross make sure the wires are perpendicular at the intersection point.
- Keep the wires separated according to interface. The rule of thumb is that wiring that shares similar electrical characteristics may be bundled together.
- Do not bundle input wiring with output wiring. Keep them separate.
- When necessary, it is strongly advised that you label wiring to all devices in the system.
- Do not run signal or communication wiring and power wiring in the same conduit. To avoid interference, wires with different signal characteristics (i.e., different interfaces) should be routed separately.
- Be sure to disconnect the power cord before installing and/or wiring your device.
- Verify the maximum possible current for each wire gauge, especially for the power cords. Observe all electrical codes dictating the maximum current allowable for each wire gauge.
- If the current goes above the maximum ratings, the wiring could overheat, causing serious damage to your equipment.
- Be careful when handling the unit. When the unit is plugged in, the internal components generate a lot of heat which may leave the outer casing too hot to touch.

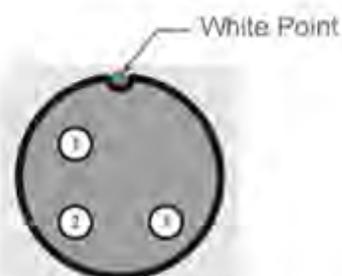
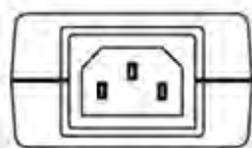
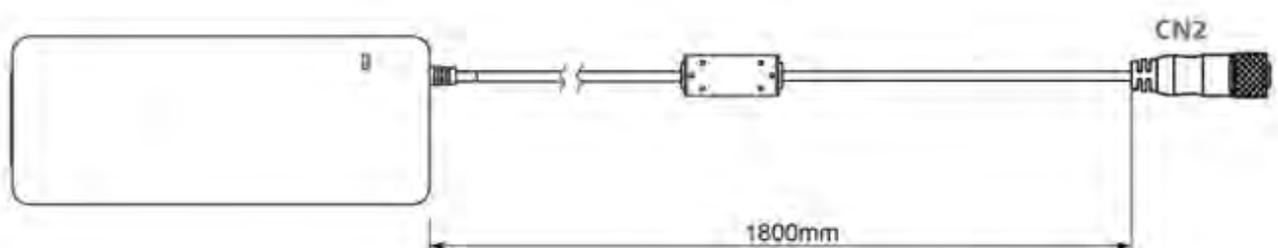
3.2 Connector Pin Assignments

This Panel PC is equipped with four waterproof connectors. Use only the cables that are included in the package. The pin assignments of the cables are as follows.

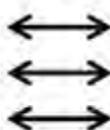
3.2.1 Power Cable

The IP69K Stainless P-Cap Panel PC has waterproof power input connector. Use power cable to connect Panel PC to the source of power.

IP69K Stainless P-Cap Panel PC support 12V DC power input.



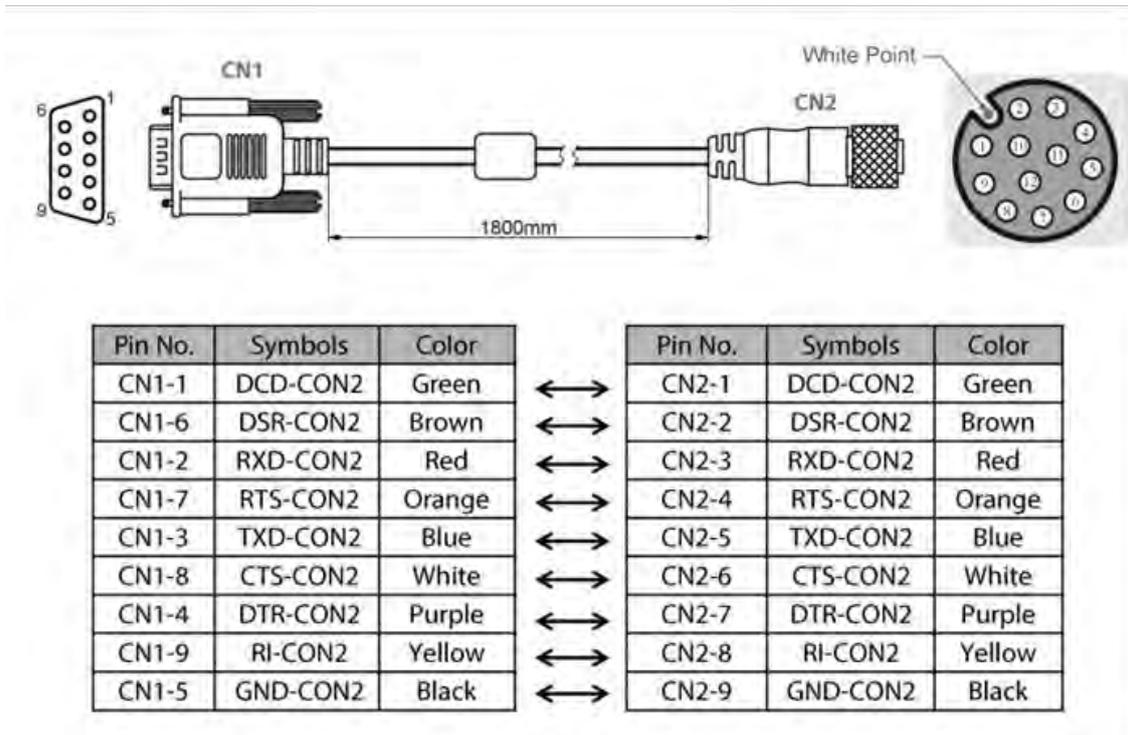
Pin No.	Symbols	Color
CN1-1	V+	NO ASSIGN
CN1-2	GND	NO ASSIGN



Pin No.	Symbols	Color
CN2-1	V+	NO ASSIGN
CN2-2	GND	NO ASSIGN
CN2-3	V-	NO ASSIGN

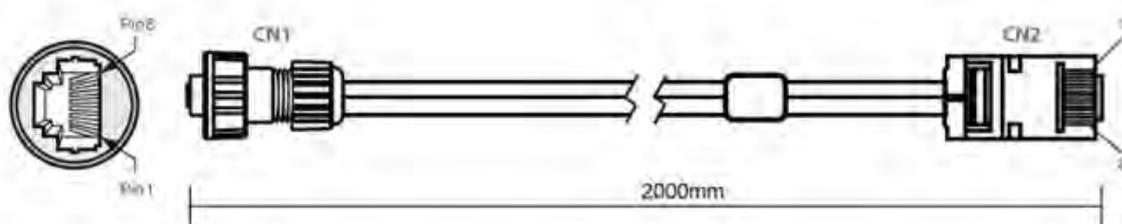
3.2.2 Serial Cable

The IP69K Stainless P-Cap Panel PC has waterproof serial port connector. Use serial cable to connect serial interfaces.



3.2.3 Ethernet Cable

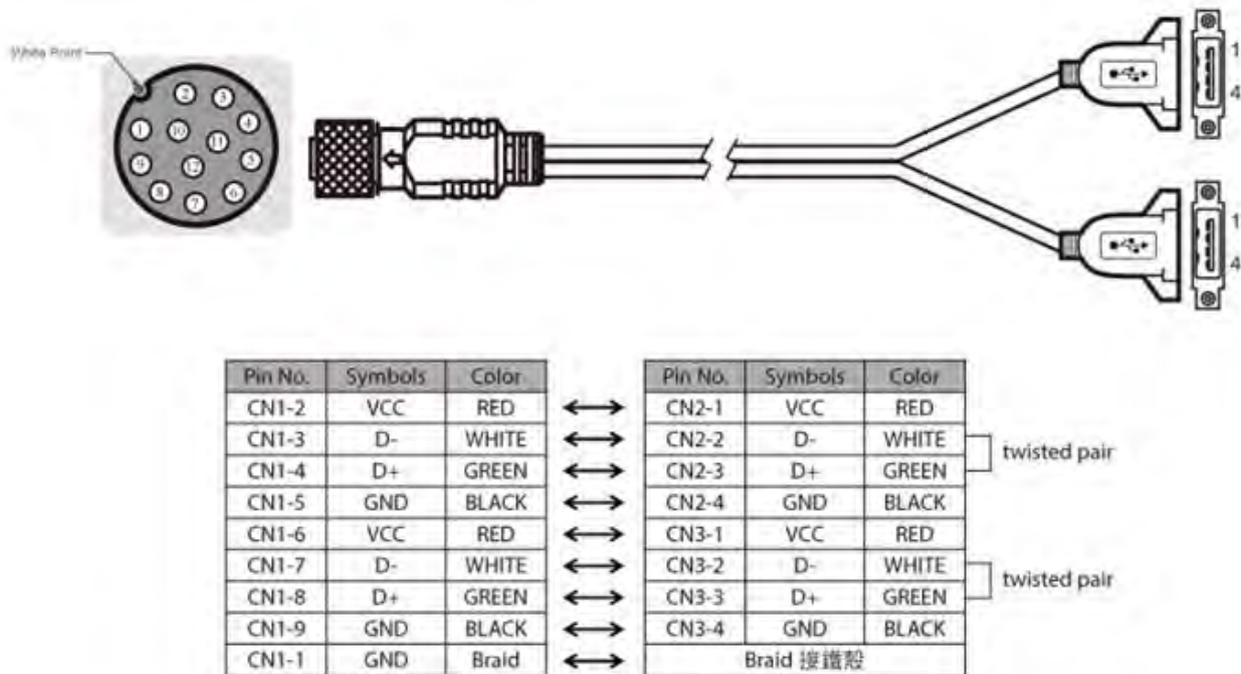
The IP69K Stainless P-Cap Panel PC has waterproof Ethernet connector. Use Ethernet cable to connect the Panel PC to the Internet.



Plug	Wire Color	Conn.	
1	Orange / White	1	Twist
2	Orange	2	
3	Green / White	3	Twist
4	Blue	4	
5	Blue / White	5	Twist
6	Green	6	
7	Brown / White	7	Twist
8	Brown	8	

3.2.4 USB 2.0 Cable

The IP69K Stainless P-Cap Panel PC has waterproof USB 2.0 connector. Use USB 2.0 cable to connect external devices such as mouse or keyboard to the Panel PC.



3.3 Mounting

The IP69K Flat Stainless P-CAP Panel PC devices come with different mounting options suitable for most of the industrial and commercial applications.

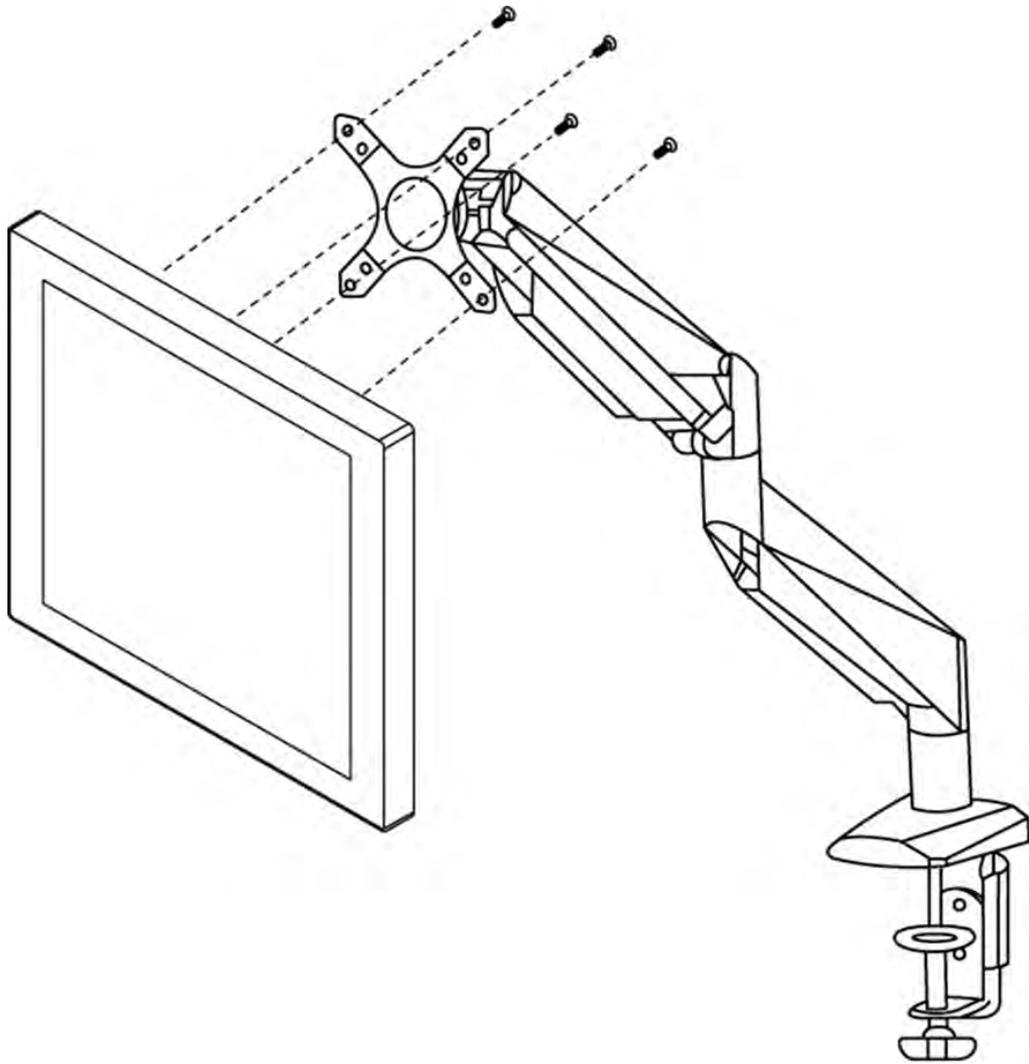
3.3.1 VESA Mounting

The Panel PC has VESA mount holes on the rear side. Follow instructions below to mount the unit with VESA Mount bracket (not supplied by Winmate).

Size	VESA Plate	Screws
15", 17", 19"	100 x 100 mm	VESA M4x5 mm
21.5"	100 x 200 mm	VESA M4x5 mm
23.8"	100 x 200 mm	VESA M6x8 mm

Mounting Instruction:

1. Screw VESA bracket to the fixture (ex. swing arm) with four VESA screws.
2. Place the device on VESA bracket.

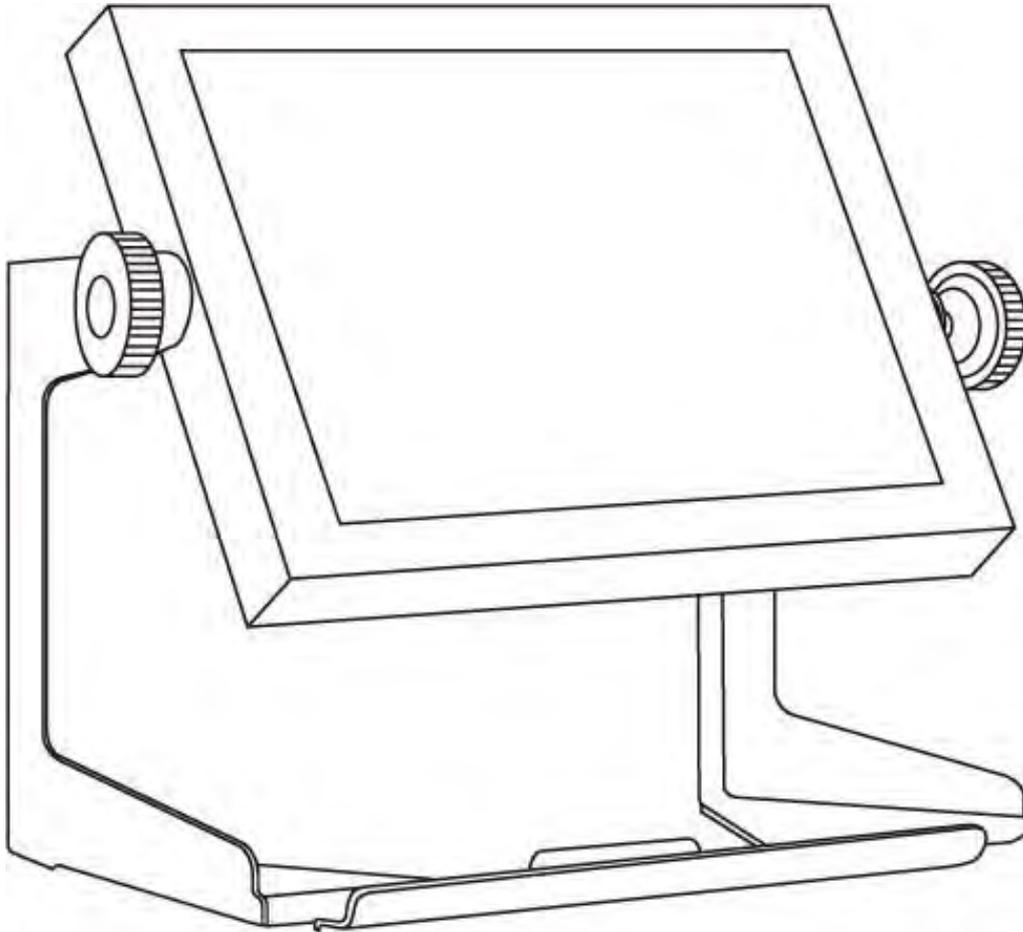


3.3.2 Yoke Mounting

Yoke Mount solution allows installing the Panel PC with the bracket (not supplied by Winmate).

Mounting instruction:

1. Place the Panel PC on the bracket stand, aiming screw holes for each other.
2. Secure screws to fix the device upon the bracket stand.
3. Firmly secure the locking handle to the Panel PC.



Appendix

Appendix A: Hardware Specifications

	Model Name				
	R15IT3S-SPC369	R17IT3S-SPM169	R19IT3S-SPM169	W22IT3S-SPA369	W24IT3S-SPA269
Display					
Size	15 inches	17 inches	19 inches	21.5 inches	23.8 inches
Resolution	1024 x 768	1280x1024	1280x1024	1920x1080	1920x1080
Panel Brightness	300 nits	350 nits	250 nits	250 nits	250 nits
Contrast Ratio	2000:1	1000:1	1000:1	3000:1	3000:1
View Angles	88,88,88,88	85,85,80,80	85,85,80,80	89,89,89,89	89,89,89,89
Touch/ Glass	Projected Capacitive Multi Touch Screen	Projected Capacitive Multi Touch Screen	Projected Capacitive Multi Touch Screen	Projected Capacitive Multi Touch Screen	Projected Capacitive Multi Touch Screen
Active Area	304.1x228.1 mm	337.920x270.336 mm	376.32x301.06 mm	476.64x268.11 mm	527.04x296.46 mm
System					
Processor	Intel Core i5-1135G7 2.4GHz (up to 4.2GHz) Intel Core i5-1145G7 2.6GHz (up to 4.4GHz) (Optional)				
Memory	1 x SO-DIMM, DDR4 3200 MHz, 4GB 8GB (Optional) 16GB (Optional) 32GB (Optional)				
Storage	1 x M.2 M-Key 2242 SATA SSD or 1 x M.2 M-Key 2280 NVMe SSD 128GB 256GB (Optional) 512GB (Optional) 1TB(for NVMe) (Optional) 2TB(for NVMe) (Optional) 4TB(for NVMe) (Optional) 1 x SATA III , up to 2TB (Optional)				
Ethernet controller	2 x Intel® Ethernet Controller				
Security	TPM 2.0				
Operating System	Windows 11 IoT Enterprise SAC (64 bit) (Optional) Windows 10 IoT Enterprise (64 bit) (Optional) Linux Ubuntu 22.04 (Optional) Realtek ALC283 HD Audio Codec Realtek ALC283 HD Audio Codec Realtek ALC283 HD Audio Codec				
WLAN	Support (Optional)				
BT	Support (Optional)				

	Model Name				
	R15IT3S-SPC369	R17IT3S-SPM169	R19IT3S-SPM169	W22IT3S-SPA369	W24IT3S-SPA269
IO Ports					
USB Port	1x M12 waterproof connector for 2 x USB2.0				
Serial Port	1 x M12 waterproof connector for RS232				
Lan	1 x waterproof Giga LAN RJ45 connector				
Indicator	1 x LED Indicator for power 1 x LED Indicator for storage				
Power Input	1 x M12 waterproof connector for 12V DC				
Mechanical					
Dimension	378 x 301 x 56.4 mm	412 x 344 x 61.3 mm	468 x 395 x 57 mm	541 x 337 x 56.2 mm	620 x 390 x 56 mm
Cooling System	Fanless				
Enclosure	Stainless Housing				
Mounting	Yoke Mount VESA Mount				
Environment					
Operating Temperature	0°C to +45°C				
Operating Humidity	10% to 90% (non-condensing)				
Storage Temperature	-20°C to 60°C				
IP Rating	IP69K				
Control					
Button	1 x Power Button 1 x Reset Button				
Power					
Power Rating	12V DC (M12 type)				
Certification					
Certification	CE, FCC				

**Maximum backlight & high CPU load*

NOTE:

- Accessories and Integrated Options may vary depending on your configuration. The product shown in this datasheet is a standard model. For diagrams that contain customized or optional I/O, please contact the Winmate Sales Team for more information.
- All specifications are subject to change without prior notice.

Appendix B: Cleaning the Monitor



Note:

The IP69K Stainless Panel PCs withstand regular intense cleaning and could hold up against steam and high-pressure water. The devices are able to sustain water temperatures up to 80°C and a water jets.

Before cleaning:

- Make sure the device is turned off.
- Disconnect the power cable from any AC outlet.

When cleaning:

- Use water up to 80°C to clean the housing.
- Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
- The display area is highly prone to scratching. Do not use ketene type material (ex. Acetone), Ethyl alcohol, toluene, ethyl acid or Methyl chloride to clear the panel. It may permanently damage the panel and void the warranty.
- If it is still not clean enough, apply a small amount of non-ammonia, non-alcohol based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen.
- Don not use oil directly on the display screen. If droplets are allowed to drop on the screen, permanent staining or discoloration may occur.

Appendix C: Winmate Software Development Kit

Wimate provides the following SDK and Utilities for the IP69K Stainless P-Cap Panel PC.

Item	File Type	Description
1	SDK	Watchdog SDK
2	Utility	Watchdog Utility

To find the Drivers and SDK, please refer to the Driver CD that comes in the package or contact us. Also, you can download drivers from Winmate Download Center.

Wimate Download Center

Go to www.wimate.com > Support > Download Center > Full IP65/IP69K Stainless PPC > Kaby Lake



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